# Maritime Clean Air Strategy (MCAS) Discussion Draft Overview

#### Port of San Diego

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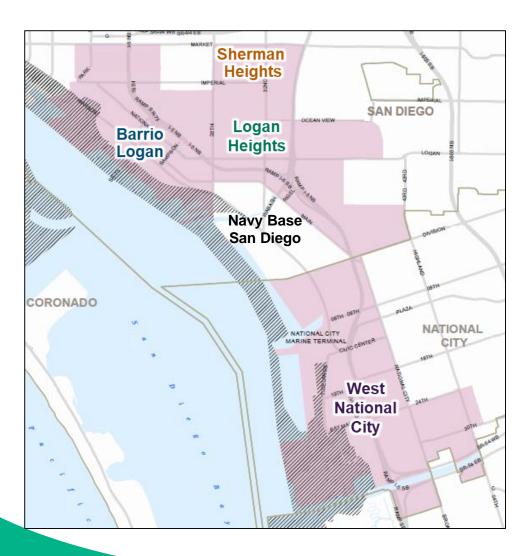
Maggie Weber, Senior Planner, Planning





## **Community Air Protection Program**

#### **AB 617 – Community Air Protection Program**



#### **AB 617 Portside Community**

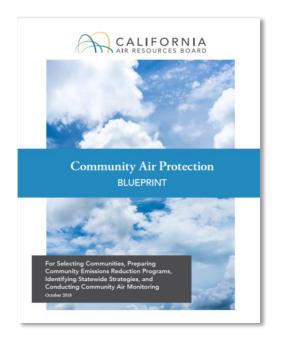
Community Emissions Reduction Program (CERP), 2019:

- Focus and accelerate new actions that go beyond existing programs
- Steering Committee to guide development of the program



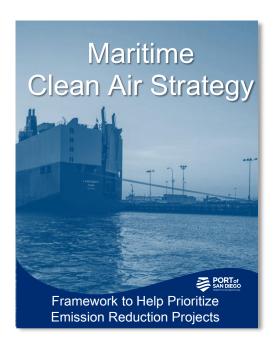


## **Complementary Efforts**



#### **AB 617 CERP**

- Multi-jurisdictional plan for the region
- Portside Community focus
- Accelerate new actions beyond existing programs



#### **District's MCAS**

- District's plan for Port Tidelands
- Maritime and goods movement focus
- Guide emission reduction projects and investments



#### Maritime Clean Air Strategy Approach

#### **INVENTORY & OPERATIONS**



Cargo Handling Equipment



Commercial Harbor Craft



Drayage Trucks



Port of San Diego Fleet



Maritime Industrial Uses (Shipyards)



Ocean Going Vessels



Rail

## BACKGROUND & CONTEXT

History of Previous Efforts

Legislative and Regulatory Framework



Environmental Justice & Equity

## RESEARCH & ANALYSIS

Technologies and Costs

Feasibility





## Maritime Clean Air Strategy

**Goals and Objectives** 

S Specific

**Measurable** 

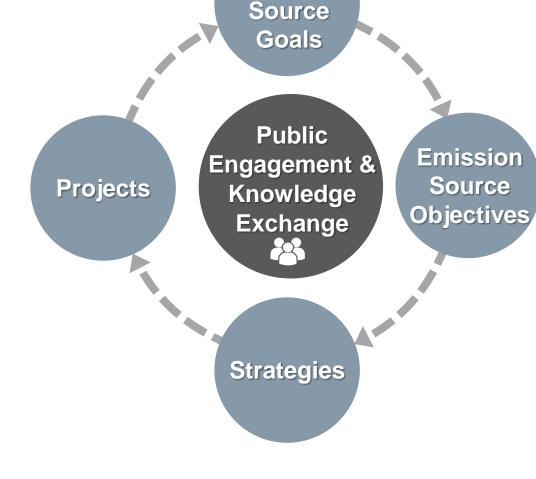
**Attainable** 

Relevant

Time-bound

Inclusive

**E** Equitable



**Emission** 



















#### **AB 617 MCAS Subcommittee Meetings**

TOTAL ATTENDEES FOR EACH MEETING

34

191 191

Ŋ

33 32

31

191

192

20

21

19

191

191

24

191

19

20

19

19

**Meeting #1** 10/20/20 Purpose & Background Meeting #2 11/03/20 PMPU & Policy

Meeting #3 11/17/20 Cargo Handling Equipment

**Meeting #4** 12/01/20 Commercial Harbor Craft

Meeting #5 12/15/20 On-road Trucks

Meeting #6 01/05/21 Port Fleet & **Shipyards** 

Meeting #7 01/20/21 **Oceangoing** Vessels & **Funding** 

Meeting #8 02/02/21 Goals & **Objectives** 

02/16/21 Goals & **Objectives** 

32

Meeting #9 Meeting #10 Meeting #11 03/02/21 3/16/21 Goals & Goals & Objectives Objectives

Meeting #12 03/23/21 Goals & **Objectives** 

Meeting #13 03/30/21 Goals, Object & Discussion Draft











UC San Diego









PORT TENANTS ASSOCIATION







## **Next Steps**

PORT of SAN DIEGO

- March 23<sup>rd</sup> MCAS Discussion Draft (4 weeks)
  - https://pantheonstorage.blob.core.windows.net/ environment/Maritime-Clean-Air-Strategy-Discussion-Draft.pdf
- April 7<sup>th</sup> Community Conversation at 5pm
  - https://us02web.zoom.us/webinar/register/
     WN\_KcQj39R4Raiq6cB4v33l6w
- Written Comments Due by April 20th
  - MCAS@portofsandiego.org
- May 11<sup>th</sup> Board of Port Commissioners Meeting (Target date)
  - <a href="https://www.portofsandiego.org/about-port-san-diego/board-meetings">https://www.portofsandiego.org/about-port-san-diego/board-meetings</a>

#### **Community Residents**



#### **Agencies and Industry**













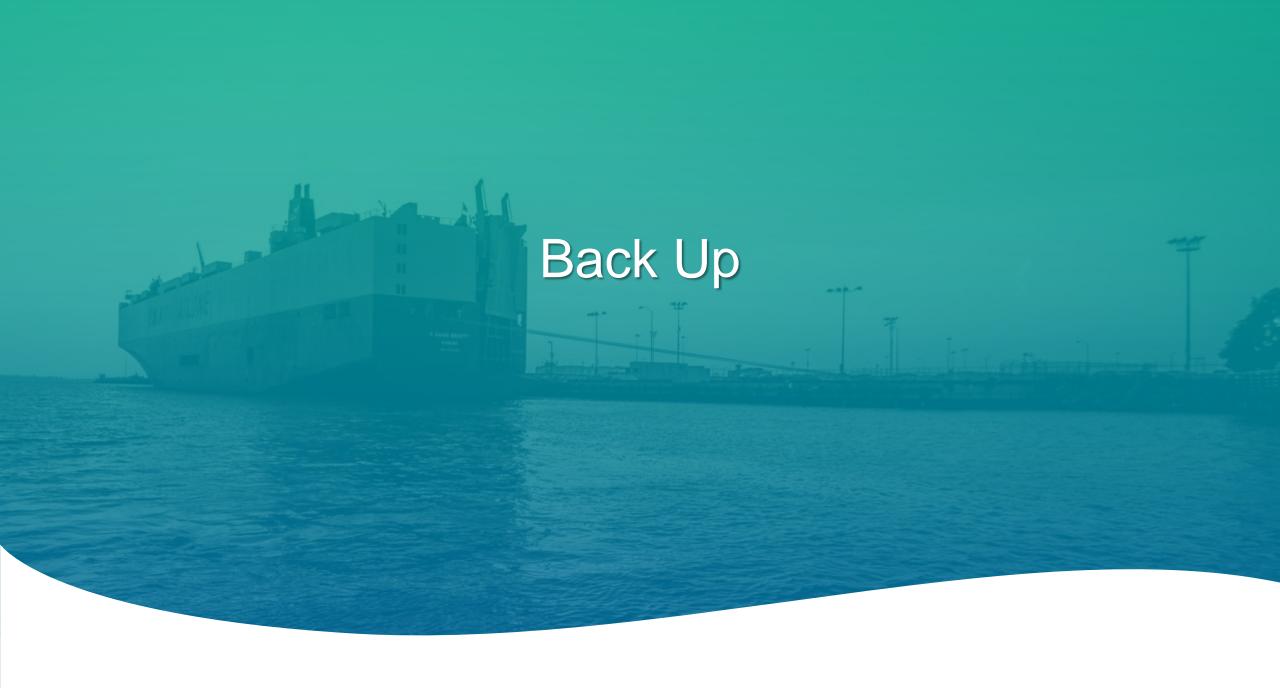












## Legend





Aligns with State Requirements



Goes beyond State Requirements



## **Cargo Handling Equipment**

CHE Goal – Attain substantial reductions for CHE related emissions by facilitating upgrades to ZE/NZE equipment alternatives.



Objective CHE #1: Reduce emissions from cargo handling equipment by approximately 90% for NOx, 80% for DPM, and 50% for CO2e below 2019 levels by 2026



Objective CHE #2: Continue to stay engaged with CARB Rule-making development



#### **Commercial Harbor Craft**

CHC Goal – Reduce emissions from Harbor Craft by advancing emerging zero emission technologies through 2031.



**CHC Objective 1:** Support ZE Tugboats and Ferries in advance of State regulations, as opportunities become available.



**Objective 2:** Advance the State's goals for commercial harbor craft by supporting short-run ferry-operators with implementing ZE ferries for <u>all new</u> short-runs, and by assisting tug-operators with implementing hybrid/electric technologies <u>for all new</u> tugs and excursion vessels.



#### **Heavy Duty Trucks**

TRK GOAL 1 – To improve the air quality of the Portside community, accelerate the phase-out of diesel trucks that call to the Port's marine terminals, in alignment with the State's long-term goal to reach 100% ZE Drayage Trucks by 2035.



TRK Objective 1A: Develop a short-haul on-road ZE Truck Shuttle Program, with accompanying charging infrastructure, comprised of a trucking company and/or independent drivers to displace approximately 20,000 diesel vehicle miles traveled annually (equal to about 12 percent of community miles) by 2024 and continuing through 2026.



TRK Objective 1B: Reduce 10% of the 2016 Maritime Air Emissions Inventory's truck emissions (DPM and NOx) by 2023 by working with stakeholders to deploy: a) technologies; or b) fuels; or c) by modifying current business practices and operations.



TRK Objective 1C: Use truck registry system to promote that all short-haul drayage truck routes are ZE by 2031.



TRK Objective 1D: Collaborate with community residents, stakeholders, and agencies to identify up to three locations for ZE truck charging with each site capable to serve ten trucks simultaneously by 2023.



TRK Objective 1E: Work with SDG&E and community stakeholders to develop sites identified in Objective 1D to provide the best available charging technology, and to ensure that the sites are accessible to both fleet and independent truckers and that there is a fair and reasonable rate structure for the customers by 2026.



## **Heavy Duty Trucks**

TRK GOAL 2 – Support the designated truck route to avoid truck impacts to the local community.



TRK Objective 2A: Work with partners to create a connected and flexible freight and transit haul route that provides more efficient freeway access and encourages truck drivers to avoid residential neighborhoods by leveraging technology to support dedicated lanes, signal prioritization and/or geofencing.



## **Port of San Diego Fleet**

FLT Short Term Goal 1 – Update Port procurement policies to acquire zero emission vehicles and best available alternative fuels or technologies.



FLT Objective 1A: Update the Port's vehicle procurement policy to identify a hierarchy of procurement considerations which targets zero emission vehicles and then best available alternative fuels to ensure the lowest emitting option available.



FLT Objective 1B: Create a zero-emission vehicle transition plan in FY 2022 for the Port's fleet of vehicles and equipment which identifies a long-term acquisition schedule for when current vehicles and equipment will be phased out and new electric vehicles and equipment is anticipated to be procured.



## **Port of San Diego Fleet**

FLT Short Term Goal 2 – Procure zero emission vehicles and necessary electric vehicle service equipment for charging beginning in FY 2022.



FLT Objective 2A: Procure at least two better electric medium- to heavy-duty vehicles in FY 2022.



FLT Objective 2B: Apply to SDG&E Power Your Drive for Fleets Program in calendar year 2021, which aims to install infrastructure to support power needs and electric vehicle charging located at the General Services facility.



## Port of San Diego Fleet

FLT Long Term Goal 1 – Shift to battery-electric vehicles with a target of all light-duty vehicles becoming electric by 2030 and all medium- to heavy-duty vehicles becoming electric by 2035.

FLT Long Term Goal 2 – Transition emergency vehicles to alternative fuels including hybrid, electric, and/or low carbon fuels.

FLT Long Term Goal 3 – Convert equipment such as forklifts, small powered generators, and lawn maintenance equipment to zero-emissions, hybrid technologies, and/or low carbon fuels, where feasible and commercially available.

FLT Long Term Goal 4 – Seek opportunities to advance lower emitting solutions for marine vessels (few options existing for zero emission vessels).



## **Shipyards**

The Ports three major shipyards have committed to the following emission reduction strategies as part of the Portside Community's AB 617 Draft Community Emission Reduction Plan (November 2020), and are summarized below.

# **AB 617 Draft CERP Action G5:** Reduce DPM and NOx Emissions from Portable Air Compressors and Other Diesel Sources at Shipyards.

The shipyards have committed to requiring on site portable air compressors to be powered by either electric or diesel Tier 4 engines, in addition to continuing ongoing actions to reduce emissions from on and off-road diesel equipment, no later than May 1, 2021.

# **AB 617 Draft CERP Action G6:** Promote Best Practices for Reducing Diesel, VOC, and other Emissions from Ship Repair Activities.

The shipyards have committed to conduct trainings and events focused on best practices for ship repair contractors to reduce emissions.

#### AB 617 Draft CERP Action G7: Reduce Emissions from Shipyard Employee Transportation.

The shipyards have committed to promoting and increasing participation in alternative transportation.



## **Ocean Going Vessels**

OGV In-Transit Goal 1 – Reduce OGV in-transit annual emissions by 243 tons for NOx, 5 tons for DPM and 9,685 metric tons for CO2e.



OGV Objective 1A: Implement an expanded VSR Program that achieves upwards of 90% compliance.

OGV At-Berth Goal 2 – Reduce OGV At-Berth emissions by expanding existing and/or developing new shore power systems and/or equivalent technologies at the Port's marine terminals.



OGV Objective 2A: At CST, add additional plug to existing shore power system by 2023.



OGV Objective 2B: At NCMT, add new shore power system with at least two plugs by 2025.



OGV Objective 2C: At TAMT, add additional plug to existing shore power system by 2031.

#### Rail



RL Goal 1 – Implement Rail Upgrades identified in TAMT EIR.



**RL Objective 1:** Complete TAMT rail upgrades including a rail lubricator and compressed air system for air brake testing.

RL Goal 2 – Promote the use of Single Engine Tier 4 Switcher if applicable to operations at TAMT and NCMT.



**OGV Objective 2A:** Tenants that rely on rail operations to move cargo shall be encouraged to use cleaner switchers.

#### **Funding**



**FND Goal 1 –** Establish a process that allows stakeholders and the public to provide input in the selection, deployment, and on-going monitoring of emission reduction projects.

**FND Goal 2 –** Create a Clean Air Clearinghouse Program to holistically support deployment, operation and maintenance of large emission reducing projects, with clean air benefits.

**FND Goal 3 –** Enter into a Memorandum of Understanding (MOU) with the San Diego Air Pollution Control District (SDAPCD) to administer CARB Funding to help fund ZE/NZE Trucks and/or Cargo Handling Equipment.

**FND Goal 4 –** Establish an Emission Reductions Incentive Program.

**FND Goal 5 –** Prepare a market study / feasibility analysis for the Board that explores a range of potential fees that can support zero and near-zero emission reduction projects, as well as any implications that the fee may have on the Port's revenue and maritime business opportunities.